

# SMUG

# BYTES

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SMUG BYTES  
Volume 6, Number 10  
October 1989

\* Subscriptions = \$10.00 per year \*  
\* or free with swap. Send to: \*

\* SINCLAIR MILWAUKEE USERS GROUP \*  
\* P.O. Box 101, Butler WI 53007 \*

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\* THIS MONTH: \*

- \* - \*
- \* - Rudy's SQ Notes. \*
- \* - The 1990 Sinclair Fest \*
- \* - Presidents Message \*
- \* - And Other Great Things \*

\* If any articles are copied \*  
\* please credit SMUG BYTES \*

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\* NEXT MEETING DATE: 11/01/89 \*

\* Send all contributions by the \*  
\* 3rd Wednesday of the month to: \*

\* Bill Heberlein \*  
\* Editor \*  
\* SMUG BYTES \*  
\* 5052 N. 91st Street \*  
\* Milwaukee WI 53225 \*

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## 1989 OFFICERS & WORKING MEMBERS

\* All Area Codes Are 414 \*

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\* - 353 4522

\*V. Pres. - W. Heberlein  
\* - 527 2191

\*Secretary - L. Dreger  
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\*Treasurer - A. Doneis  
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\*Education - R. Cultice  
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\* 1 - 338 0260

\*Book - D. Nickel  
\* 1 - 284 9691

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\*"C" - R. Cultice

\*Meeting Alt. Sundays of the month\*  
\* - 542 3591

\*Games - N. Schultz

\*Meeting 3rd Saturday of the month\*  
\* - 353 4522

\*Hardware - G. Kraemer

\*Meet-no set date. Call for info. \*  
\* - 421 0179

\*Q1 - R. Hilsmann

\*Meeting 3rd Wednesday of month  
\* - 251 5291

\*Spectrum - R. Hilsmann

\*Meeting 3rd Wednesday of month  
\* - 251 5291

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(NOTE NEITHER ANY AUTHOR OR SMUG BYTES TAKES ANY RESPONSIBILITY  
FOR ANY HARDWARE MODIFICATIONS TO YOUR EQUIPMENT.)

## THE 1990 SINCLAIR FEST

I am including a flyer(s) with this issue for the Midwest Sinclair Expo. The flyer will contain information for reserving tickets, tables and banquet seats. Please feel free to copy it and pass it out to your members, if you are in a user group, or anyone else you feel might like to come to our Expo. We are trying to hold down costs so you can buy more programs or what ever else you would like. As the flyer says there will be a banquet Friday night and it will be delicious. The reservations must be in a week before the dinner so please send your reservation request in before that date. We know sometimes it is difficult to know in advance but it's something we have know control over.

Remember the dinner will be a buffet with three types of food. Come and bring your appetite. One other thing is we can use speakers. So if you would like to show YOUR expertise and pass it on to others please drop me a note that you or your group will speak and the topic. Also the time or times you would prefer. We will try to oblige. Please poll your members. I will publish directions in the next issue and also send the info to TS2068 Updates and Time Designs magazines. If you have any questions the flyer has my name and address or Neals phone number. He has an answering machine if he isn't able to respond right away. "See you in Milwaukee" June 1-3, 1990.

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## "SQ" NOTES

BY R.A.HILSMANN

What's new in the world of Sinclair Computers?

Some time ago, one could at least get a hold of a Magazine of some sorts to find out. Sure one would have to look for it, or perhaps order it from abroad, but at least there was something. I have not seen anything written about the Sinclair Computers in a long time. Is there still someone out there publishing anything for the computer I bought?

After Timex gave up to compete in the computer market, at least there still was Sinclair in Britain to fall back on, now that Amstrad has taken over, all seems to have died.

A dead computer? Of course not! This thing can do a few things some others are not capable of, even to this date. I am of course talking about the 2068 Timex Sinclair Computer. Sure there is the Sinclair QL, another Timex deal, just marketed and then abondend, nothing to fall back on.

But getting back to the 2068, have you modified your 2068 already to accept Spectrum Software, and I dont mean just emulating the Spectrum, but replacing the 2068 Rom with a Spectrum Rom for true compatability with all software! Oh.. you like to be able to use both, the Sinclair and the 2068 at all times, and don't like to replace the Rom whenever you wish to switch from one system to the other?

Ever heard of the Rom Switch? Dont like to spend the money? Well, this looks like you'r a cheap 1&2\*#. Ever thought what you would have to spend to buy a knob for an IBM if Sinclair would not have build their computers?

But fortunately there is another way. I have made this modification some years ago, that was before the Rom Switch was marketed. Sure I have a Spectrum Computer, but only the

ones that ever had one of those would understand why I have gone out of my way to get back to the 2068 keyboard. So I modified my 2068 to be selectable between the systems.

This is not for the feeble minded, nor is this modification intended to be made by fumble fingers. But if you have done some delicate soldering before, and also are not timid when it comes to do some reworking of a plastic keyboard cover, this is for you. The result will be a fully compatible Spectrum and 2068 dual System Computer, switchable between either system in a second.

For good measures I also tell you how to add a reset switch to the 2068. Some parts for both modification can be bought at most Radio Shack Stores.

The part numbers are:

275-1566 Soft feel momentary switch  
275-613 SPDT Submini toggle switch

The most difficult item to get, will probably be a Spectrum Rom. Check with one of the vendors catering to the Timex-Sinclair.

Yes, Eproms may work as well, but then you would need a Spectrum Rom as a source for the code. More about this later.

Now the real job: The first thing is to take your computer appart, remove the srews on the bottom of the 2068, carefully lift the keybord off the base and tilt it towards the back. As you look into the computer, you will see the Ribbon connected to the keyboard, carefully pull the ribbon out of the socket on the circuit board, don't bend it, straight up will do fine. The next thing is to remove the circuit board from the base. Remove the srews holding the board down, and put the board at a save place for the time being. Next you will have to drill two holes into the base, get your drill ready!

Mark a point on the rear skirt of the bottom shell of your computer, about  $\frac{3}{8}$  of an inch from the top edge, and  $\frac{1}{2}$  of an inch to the left (looking at the shell from the rear) from the outer edge of the monitor socket hole. Now find the rear right corner of the bottom shell (seen from the front) next to the extension bus, and mark a point on the side of the bottom shell, about  $\frac{3}{8}$  of an inch from the rear corner, and about  $\frac{1}{4}$  of an inch from the top edge.

Using a  $\frac{3}{16}$  drill bit, drill a hole for the toggle switch at the mark you made on the right rear corner. Next drill a hole at the point you have marked on the rear skirt next to the monitor socket, using a  $\frac{3}{8}$  inch drill bit (if you don't have one that big, use the largest size you have, and enlarge the hole using a round file).

Insert the momentary switch into the rear hole, and fasten it with the hardware that came along with it. Next insert the toggle switch into the hole at the rear corner, and fasten that one as well. It is practical to have the toggle move from front to back, and insert the momentary switch the long way following the contour of the bottom shell otherwise the switch may protrude above the edge of the case preventing the top from closing.

The next item takes some guts. If you have a Dremmel tool this will be a lot easier, if you don't, heat up your soldering iron. What needs to be done is to shave some of the plastic off of the inner edge on the keyboard inside the keyboard cover. Lay the keyboard cover upside down on a table with the keyboard portion facing towards the back, now look at the cutout on the right side of the keyboard protusion (see drawing), mark the edge with a pencil not more than  $\frac{1}{8}$  of an inch to either side of the edge (to the left and down).

Use the Dremmel tool to shave the

corner  $\frac{1}{8}$  inch deep and wide, do it carefully, take your time. If you are using the soldering iron, melt the plastic moving the soldering iron along the edge very carefully. Use a knife to shave the melted plastic from the case from time to time. There is also a ridge (see drawing), which needs to be removed, again use the Dremmel tool or the soldering iron.

Re-mount the circuit board into the bottom shell of the computer. Find six #6 flat washers, using cyanoacrylate adhesive (super glue), glue two washers to each of the rear mounting posts of the keyboard half of the 2068. (see drawing). At the center hole of the circuit board, where the washers would touch the circuit traces, insulate the board with a piece of electrical tape.

Remove the Rom chip from its socket, and bend pin 28 out. Do the same to the Spectrum Rom chip, using your soldering iron and put some solder on the outside of each leg on the Timex Rom chip. Do the same to each leg on the inside, this time on the Spectrum Rom chip. Now piggy back both chips, matching the pins of each (pin 1 over pin 1 etc.), making sure that all pins from the Spectrum Rom touch the ones from the Timex Rom. Using your soldering iron again melt each pin from the Spectrum Rom to the corresponding pin of the Timex Rom leaving pin 28 on each Rom bend outwards, and separated.

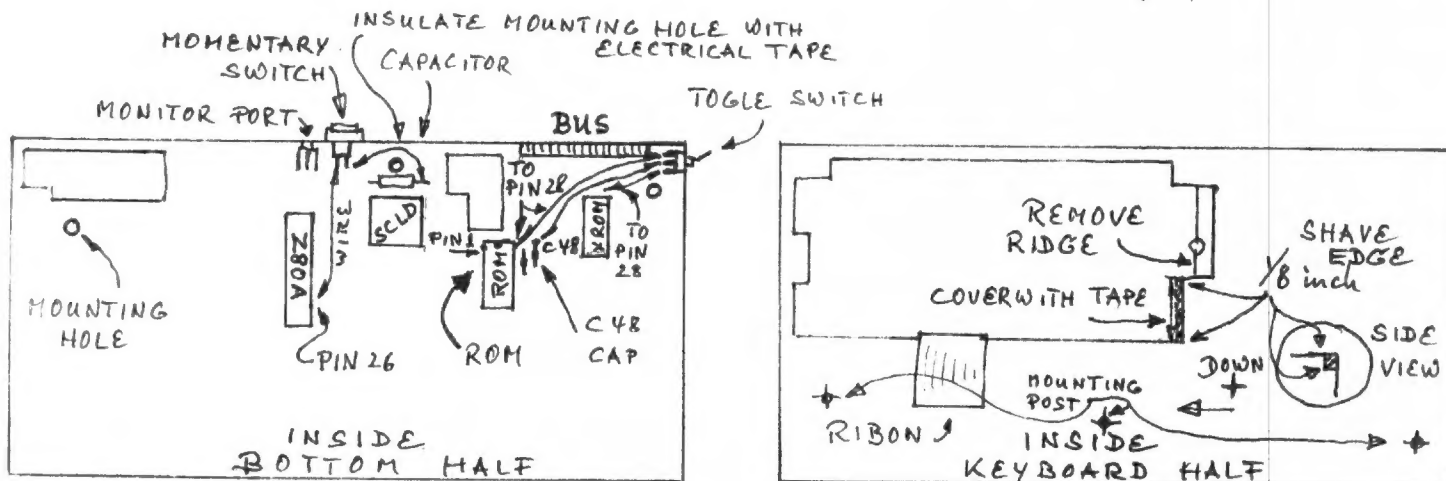
Re-insert the piggybacked Roms into the Rom socket. Next solder a wire between the center post of the toggle switch and the rear leg of C48 on the circuit board. Now solder a piece of wire from pin 28 of each Rom to opposite sides of the toggle switch. This completes the Rom Switch modification.

Make sure the keyboard half of the 2068 will fit onto the bottom half now. Also make sure the gray coating

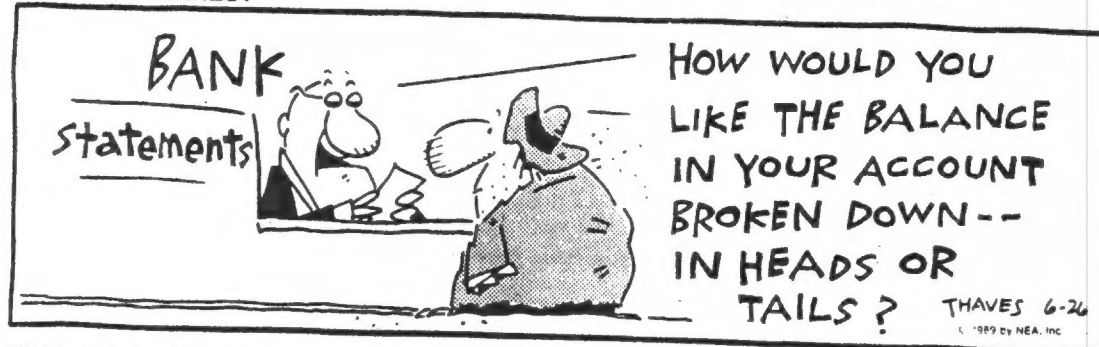
on the inside of the keyboard half does not touch the pins on the Roms, if you'r not sure, cover the area cut out of the keyboard half of the 2068 with a piece of electrical tape.

Now to the Reset feature: solder a wire from pin 26 of the Z80A CPU to one of the posts on the momentary switch you have mounted to the rear of the 2068, solder another wire from the other post to the capacitor (see drawing) that is near the SCLD chip. If you now touch the switch a reset will occur. Use a 25W soldering iron to do all soldering to the pins, dont overheat.

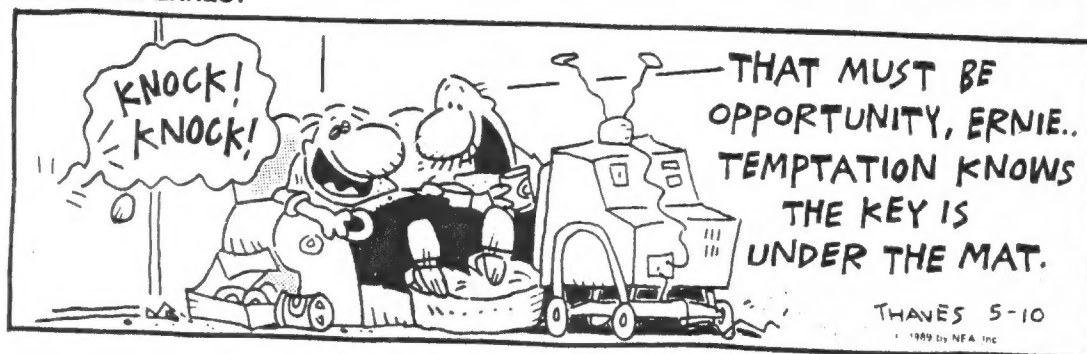
Next month I will talk about installing Eproms instead of Roms for the above modifications, have fun, now you can run any software. R.A.H.



FRANK AND ERNEST



FRANK AND ERNEST





## DIGITIZER

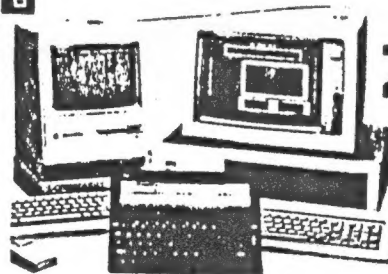
The boards are in and we are starting to put them together for shipping. If you haven't picked up yours do it now. Marty is writing instructions on how to put it together and I am copying the software.

For those of you waiting to purchase your board or assembled module now is the time. Remember the cost is \$19.95 for the bare board, parts list and assembly instructions. While the cost for the assembled board is \$49.95 plus \$5 if you want a feed thru connector. This is necessary if you want to connect the board to the back of the TS2068. The board is set to plug in a mother board, like the Oliger set up, but our design will accomodate either way. Both come with the software and both require \$3 for shipping and handling.

To order please send your order to SMUG c/o Dick Cultice, P.O. Box 101, Butler WI 53007. Be sure to tell us if you want a bare board or assembled, if you want a feed thru and what we can do to help. Be sure to include your check or money order and the address where you would like your board sent.

We should be shipping in two weeks as we still have to put the instructions together. Please note that the software will not load from the AERCO disk system. We are working on that problem but it is not solved yet. It works perfectly from tape and only requires a little extra loading time. The time loss is well worth having the ability to digitize pictures.

Just a note to all of you out there. RMG has the Z88 at a special price. Only \$419 plus \$8 shipping and handling. Why don't you give him a call.



# Z88!

The Z88 imports/exports work files from both IBM and Macintosh

## We Support the Z88!

We just wanted you to know that we will be supporting the Z88 to the best of our ability! If there is anything that you would like for your Z88 computer, be sure to let us know! As more and more products become available for this fine new portable computer, RMG will have it for you. If we don't, let us know and we will do our best to get it for you—FAST!

*For more information or prices, contact us at the address or phone given below:*

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1419 1/2 7TH STREET  
OREGON CITY, OREGON 97045  
503/655-7484 \* NOON-10 TUE-SAT

## Now on Disk! Order Now and Watch Your Mail!

### THAT'S RIGHT!

Now you can get the RMG CATALOG on LKDOS DISK in TASWORD 2 files. This format for the 2068 will be the only format available and at the same old price of only:

**\$3.00 PP**

### AND THERE'S MORE!!!

We now offer our monthly mailers on the same format disk! Keep up with what's new, used equipment and SUPER BUYS! AS AN EXTRA BONUS YOU WILL GET AT LEAST 3 PUBLIC DOMAIN S/W ITEMS FOR THE LKDOS SYSTEM PER YEAR! This alone is worth more than the \$12 per year subscription price!  
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## Some Editorial Comments

I don't know how many of you out there have noticed but the price of disks have gone down. The 5 1/4" disks are selling for under 60 cents each. Also the 3.5" disks are now under one dollar each. This means you can store programs on disk and not worry about wasting space. The only problem you should have is where to store all your disks.

For those of you who are not using disk I don't see any change in the cost of tape but all those changing to disk should have lots of used tapes for sale. Don't let others tell you what you need for your computer. If you are happy with tape and don't feel the extra loading time is a handicap then stay with the audio backup. I feel those who buy systems just to stay "up with the times" are fools. If you need the added memory, speed or

program bells and whistles then by all means get them but if what you are using does the job and you are happy why spend your money? To those user groups out there that want to exchange newsletters please write. If you know of any group fitting this category please let me know. I need a name and address to contact them. I will be glad to acknowledge your participation to the group and in our newsletter.

I have seen articles about Time Designs stating that they will continue printing and some that are not that optimistic and feel the end is in sight. I think Tim Woods will publish as he always tried his best to produce a good magazine. I do think that Tim should say something. Either to the user groups and they will pass the word or to SNUG so they can inform others.

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## PRESIDENTS MESSAGE

Where are you? We need you to get things ready for the fest. We need a few of you to find information on where to purchase items, some one to get flyers out etc. We sure can use the help. Let's spread the work load and make it a great fest for all.

-Friendly Fest, Saturday Nov. 4,  
Sarb Hall 51st & Oklahoma. \$4 at  
the door. 8am to 1pm.

-Rockford Hamfest, Sunday Nov. 12,  
9900 Forest Hills Rd. at IL Rt 173  
Rockford, IL. 8am to 3pm \$4.

To all of you out there who are  
coming to our fest and would be  
interested in holding a seminar  
please contact SMUG c/o Lloyd  
Dreger or Mark Kutnyak, P.O. Box  
101, Butler WI 53007. For Door  
prizes send to SMUG c/o Marty  
Miller or Bud Danquert same address  
See you at the meeting on the 6th.

## Garbage In Garbage Out Or In Otherwords The Meeting

Well the meeting covered a few things  
and was very lively. We were shown the  
boards and Dick explained how it was  
designed to handle either the feed  
thru or plug in to a mother board,  
like the Olinger.

Then we started on the fest  
committees. Bill is going to keep the  
vendors and users informed and handle  
the table sales from them. Lloyd and  
Mark are going to solicit for people  
to give seminars and schedule them.  
Marty and Bud are going to contact  
people for door prizes. Finally Rudy,  
Gorden and Bill will handle the  
advertising.

All members were asked to find a place  
where we can get T-shirts made up at a  
reasonable price. If any of members  
have an idea please bring it to the  
meeting in November.

## COMPUTER AND PRINTER REPAIR

*FACTORY AUTHORIZED SERVICE*

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  - Citizen
  - C.Itoh
  - Silver-Reed
  - Goldstar
  - IBM compatibles
- and other popular brands

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and 1 block west of HWY 100



S. M. U. G. Presents  
The 1990 SINCLAIR COMPUTER Exposition  
MILWAUKEE WISCONSIN

Location  
WAUKESHA HOLIDAY INN (414)-786-0460  
Hwy 18 & 194 Waukesha WI

There will be a SNUG meeting Saturday Night June 2, 1990  
Ticket Information:

	in advance	at the door
One day :	\$ 4.00	\$ 5.00
Both days:	\$ 7.00	\$ 9.00
Banquet :	\$16.00	\$16.00
Table :	\$25.00 (incl. 2 day badge) \$25.00 Limited table space	

Tables are 6 feet by 30 inches

for RESERVATIONS mail to:

Expo Reservations  
P.O. Box 101  
Butler, WI 53007

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City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Please reserve \_\_\_\_\_ one day badges @ \$4.00 each = \_\_\_\_\_  
Please reserve \_\_\_\_\_ two day badges @ \$7.00 each = \_\_\_\_\_  
Please reserve \_\_\_\_\_ banquet tickets @ \$16.00 each = \_\_\_\_\_  
Please reserve \_\_\_\_\_ 6' x 30" tables @ \$25.00 each = \_\_\_\_\_  
I have included a check/money order for (total)-> = \_\_\_\_\_

**EMSoft**

Software for the QL that really works

We sell real world software that does real work on a QL computer, much of which is tax deductible. There are business, financial and technical applications. Most operate under one of the PSION programs.

Use any of these programs even if you're scared to death of ARCHIVE\* or ABACUS\*. Instructions teach what's really needed but otherwise they are transparent. All are fully editable for special requirements.

Prices are from \$9.95 for QLUTter, a resident boot utility, to \$2850.00 for a site license for CAM MASTER, a friendly CAD program for circular cams that generates the CNC code to a vertical mill controller. (Get the demo first; it's only \$9.95 and really shows the power of the QL.

Expanded and improved versions of TRUST\_FUND 1.3, MAILBAG 2.0 and QLAND\_LORD 1.3 are available for \$4.95 with the original medium. There's DBTutor, a flash-card program, and DBProgs with 5 useful Archive utilities. We have The\_Transfer\_V3, for HP compatible laser printing of DTP files and a range of other useful, hard-working software for the QL.

Order TAX-I-QL/89 by November 22 to get a \$19.95 early-bird discount.

PSION's PC-FOUR for MS-DOS computers is only \$99.95.  
(Ever see Easel output to an HP Plotter?)

We create much of our own software but we market software by other programmers. Please call/write for details about our arrangements.

Send for our catalogue which explains things in detail.

EMSoft, P.O. Box 8763, Boston MA 02114 (617) 889-0830

# The Sinclair Milwaukee Users Group (SMUG)

We are a not-for-profit group devoted to serving the interests of those who own, use, and/or are interested in the Timex/Sinclair family of computers.

Editor and contact person is:  
Bill Heberlein (414) 527 2191.

SMUG maintains a gratis exchange of newsletters with approximately 30 Users Groups across the U.S. and Canada. Clubs not sending newsletters for more than 6 months are removed from our mailing list.

Newsletter subscription is available for only \$10 per year to non members or free with a club membership. A club membership is \$20 per year for a family membership.

Advertising cost for 1/2 page ad running for six months is \$10. The ad copy may be changed each month but you must supply the copy.

786-0460 Holiday Inn Waukesha

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The next meeting of SMUG will be held on:

Wednesday, November 1, 1989

6pm Set Up  
6:30 Members Demo  
7:30 Business Meeting  
8:30 Lotto Program Demo  
10:30 Clean Up

Location:

Equitable Savings and Loan,  
145th and Capital Drive,  
Milwaukee Wisconsin